BACKGROUND

Generally, when rain falls on vacant land, a large portion of the stormwater is absorbed in the soil and percolates into the groundwater. Additionally, natural vegetation absorbs some of the water; and some water is lost to evapotranspiration. Only a small portion of the stormwater leaves the site as runoff.

When vacant land becomes developed, paved and impermeable surfaces are introduced. This reduces the land's capacity for infiltrating stormwater and can substantially change the volume, velocity, direction, and peak flow of runoff. As an area becomes urbanized, the cumulative changes in runoff characteristics can cause impacts to the watershed. These impacts include erosion, scouring, loss of biologically significant habitat, and other physical alterations to watercourses. To mitigate these impacts, the Central Coast Regional Water Quality Control Board has developed a series of stormwater performance measures, also referred to as the Post-Construction Requirements.

We STRONGLY recommend reviewing the stormwater regulations before designing your project. Depending on which performance standards your project triggers, structural stormwater control measures may be required. Stormwater control measures could include such things as bioswales and retention basins. Complying with the performance standards could affect site design, particularly in larger projects. This information needs to be taken into consideration at the earliest approval phase. If on-site compliance cannot be achieved, you will need to work with the County on determining what alternative means of compliance may be available.

WHERE REQUIRED

Stormwater regulations apply within areas designated as a "Municipal Separate Storm Sewer System" (MS4) by the Regional Water Quality Control Board. We refer to these areas as "Stormwater Management Areas." They include all Urban Reserve Lines (URLs), most Village Reserve Lines (VRLs), and some rural areas. To determine if your site is in a Stormwater Management Area, you can use the PermitView application (http://sloplanning.org/permitview) to bring up parcel information. "Stormwater Management Area" will be listed under "Flags" if your parcel is subject to these regulations.

WHEN REQUIRED

All projects in areas subject to stormwater regulation are required to file a Stormwater Control Plan (SWCP), except for small projects involving less than 2,500 square feet of net impervious surface area. There are four performance requirements that must be met, depending on the net impervious surface area.

Performance Requirement	New or Replaced Impervious Surface Area (sqft)			
	2,500 to 4,999	5,000 to 14,999	15,000 to 22,499	22,500 +
#1 – SITE DESIGN	✔			
#2 – WATER QUALITY TREATMENT	✔	✔*		
#3 – RUNOFF RETENTION	✔	✔	✔	
#4 – PEAK MANAGEMENT	✔	✔	✔	✔

* - *A Single Family Residence with less than 15,000 square feet of net impervious surface area is exempt from Performance Requirement #2 (Water Quality Treatment)*

Figure 3-2. Which Performance Requirements Apply?

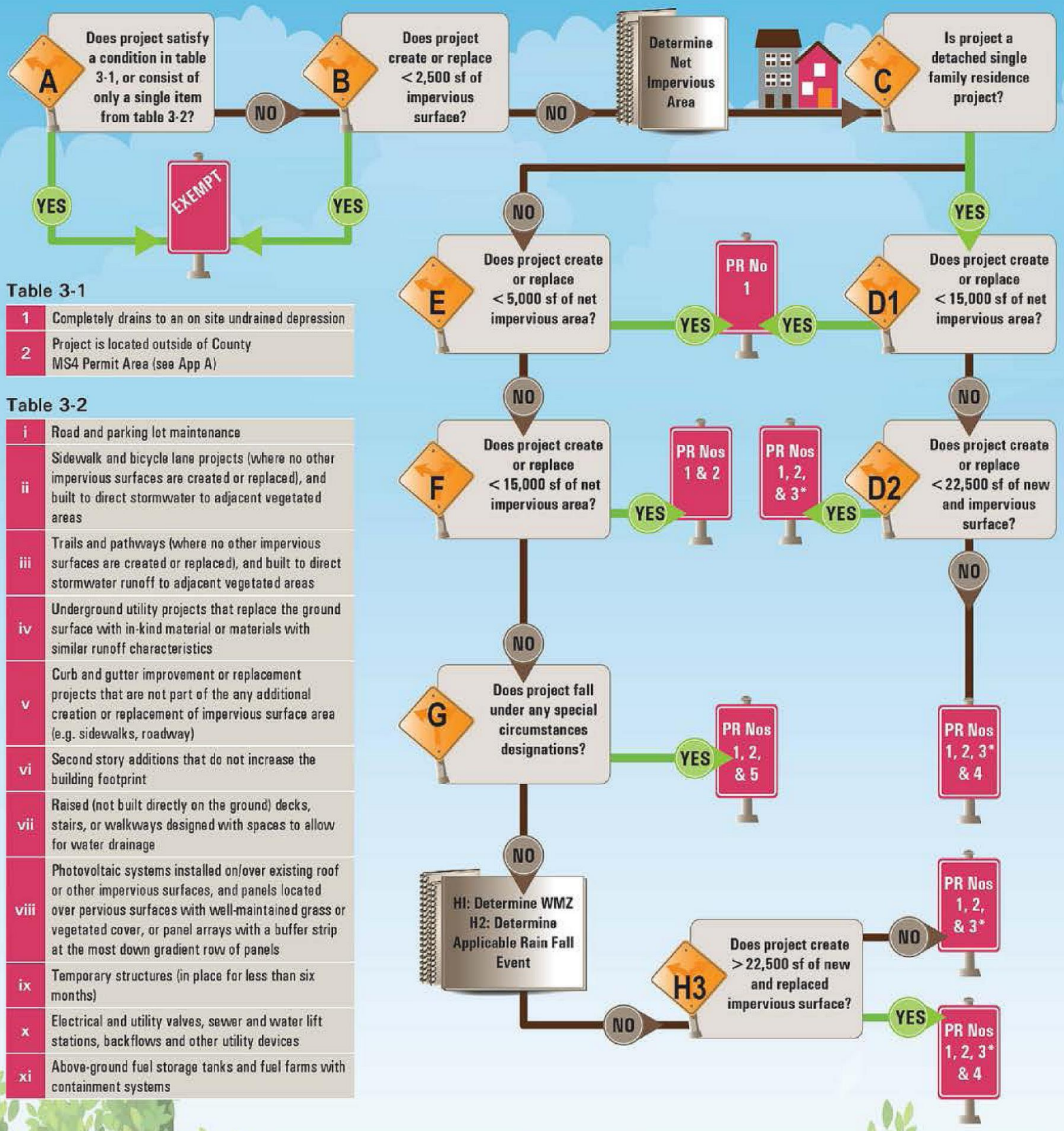

Table 3-1

1	Completely drains to an on site undrained depression
2	Project is located outside of County MS4 Permit Area (see App A)

Table 3-2

i	Road and parking lot maintenance
ii	Sidewalk and bicycle lane projects (where no other impervious surfaces are created or replaced), and built to direct stormwater to adjacent vegetated areas
iii	Trails and pathways (where no other impervious surfaces are created or replaced), and built to direct stormwater runoff to adjacent vegetated areas
iv	Underground utility projects that replace the ground surface with in-kind material or materials with similar runoff characteristics
v	Curb and gutter improvement or replacement projects that are not part of the any additional creation or replacement of impervious surface area (e.g. sidewalks, roadway)
vi	Second story additions that do not increase the building footprint
vii	Raised (not built directly on the ground) decks, stairs, or walkways designed with spaces to allow for water drainage
viii	Photovoltaic systems installed on/over existing roof or other impervious surfaces, and panels located over pervious surfaces with well-maintained grass or vegetated cover, or panel arrays with a buffer strip at the most down gradient row of panels
ix	Temporary structures (in place for less than six months)
x	Electrical and utility valves, sewer and water lift stations, backflows and other utility devices
xi	Above-ground fuel storage tanks and fuel farms with containment systems

LEGEND

Decision Point (NO / YES)

Performance Requirements Applicable to Project

Calculation/ Lookup

PR #1	Pg 3-13	PR #4	Pg 3-23
PR #2	Pg 3-15	PR #5	Pg 3-24
PR #3	Pg 3-16		

* See Appendix D if site unable to retain required PR3 Volumes

Flow Chart Reference	Applicable Questions/Determinations	PCR Handbook Reference
A	**Does the project fall under a category in Table 3-1 or Table 3-2?** ☐ YES ☐ NO If YES, please identify the exemption: #____ from [circle one]: Table 3-1 Table 3-2	*Page 3-3*
B	**Does the project create or replace less than 2,500 square feet of impervious surface?** ☐ YES ☐ NO	*Page 3-4*
	Determine Net Impervious Area New + Replaced Impervious Area: _____ sqft - Reduction in Impervious Area (pre to post) _____ sqft = Net Impervious Area _____ sqft	*Page 3-5*
C	**Is the project a detached single family residence?** ☐ YES ☐ NO	*Page 3-5*
E	**Does the project create or replace less than <u>5,000</u> square feet of net impervious area?** ☐ YES ☐ NO	*Pages 3-5, 3-6, and 3-8*
D1 F	**Does the project create or replace less than <u>15,000</u> square feet of net impervious area?** ☐ YES ☐ NO	
D2 H3	**Does the project create or replace less than <u>22,500</u> square feet of net impervious area?** ☐ YES ☐ NO	
G	**Does the project fall under any special circumstances?** ☐ YES ☐ NO If YES, Which of these special circumstances apply: ☐ Highly Altered Channel ☐ Intermediate Flow Control Facilities ☐ Historic Lake or Wetland	*Page 3-6 and Appendix A*
H1 H2	**Determine Your Watershed Management Zone and Rainfall Event:** Property is in WMZ # _____ Rainfall Event _____ in.	*Page 3-7*

EXEMPT

EXEMPT – Project is exempt from the stormwater regulations. To document this exemption, we recommend you fill out a the first two pages of the Stormwater Control Plan application package.

Projects may be exempt if they are outside of an MS4 area or involve less than 2,500 square feet of impervious surface area. Performance requirements are not applicable to exempt projects.

PR No 1

PR #1: SITE DESIGN AND RUNOFF REDUCTION – The project is required to (1) document the appropriateness of the site design, and (2) choose one runoff reduction measure. PR #1 is not a numerical performance requirement, and therefore sizing calculations and engineer certification is not necessarily required.

Projects that are subject only to PR #1 include single family residences with less than 15,000 square feet of impervious surface area and other development projects with less than 5,000 square feet of net impervious surface area.

PR Nos 1 & 2

See above for information on PR #1 (Site Design)

PR #2: WATER QUALITY TREATMENT – The project is required to route stormwater through Low Impact Development (LID) stormwater devices for treatment. If LID devices aren't feasible, the stormwater can be treated through biofiltration or non-retention-based treatment systems.

Stormwater devices must be sized to handle the 85th percentile 24-hour storm event.

PR Nos 1, 2, & 3*

See above for information on PR#1 (Site Design) and PR#2 (Water Quality Treatment).

PR # 3: RUNOFF RETENTION – The project is required to retain and infiltrate stormwater. The volume of retention facilities is determined based on which Watershed Management Zone (WMZ) the project is located in. Most WMZs will require retention and infiltration for the 95th percentile storm event.

Note: Watershed Management Zone #3 is exempt from Performance Requirement #3 (Runoff Retention).

PR Nos 1, 2, 3*, & 4

See above for information on PR #1 (Site Design), PR #2 (Water Quality Treatment), and PR #3 (Runoff Retention)

PR #4: PEAK MANAGEMENT – After the development is completed, the peak flow rate for the 2- through 10-year storm events must not exceed the pre-development peak flow rate.

PR Nos 1, 2, & 5

See above for information on PR#1 (Site Design) and PR#2 (Water Quality Treatment).

PR #5: SPECIAL CIRCUMSTANCES – Projects that discharge to highly altered channels, historic lakes or wetlands, or intermediate control facilities are subject to the "Special Circumstances" performance requirement in lieu of PR #3 and PR #4.

See the Post Construction Requirements (PCR) Handbook for specific details and guidance on achieving compliance with the applicable performance requirements.

Strategies to Achieve Compliance

In general, compliance can be achieved by using the following strategies:

1. **Reduce the amount of runoff, where possible.** You can do this by building on poorly infiltrating soils, reducing building footprint, etc.
2. **Direct runoff to vegetated areas.** Direct stormwater from roofs and paved areas to vegetated areas for treatment. Prevent runoff from traveling across paved surfaces.
3. **Disperse drainage.** Rather than channeling stormwater to a single collection point, consider dispersing it to vegetated areas and smaller bio-retention cells.
4. **Use bio-retention cells for treatment and retention.** Where possible, try to achieve compliance by using bio-retention cells, as this solution tends to be more cost effective and easier to maintain than others. See PCR Handbook Appendix H for standard details.

For Exempt Projects

Submit the first two pages of the SWCP Application Package (SWCP Application and Coversheet) and mark the reason that the project is exempt. Reasons for exemption include:

- The project is located outside of a Stormwater Management Area
- The project does not create or replace 2,500 square feet of impervious surface.
- The project received land use approval prior to March 6, 2014.

For all Performance Requirements (1, 2, 3, and 4)

1. Have your architect/engineer/designer **review the Post Construction Requirements** before you have the project designed to ensure that compliance can be achieved.
2. Calculate the **net impervious surface area** and identify which Performance Requirements the project must meet.
3. Submit a **Stormwater Control Plan (SWCP)**, using the materials provided in the SWCP Application Package.
4. Fill out the **Site Design Analysis** form in the SWCP Application Package.
5. Choose one **Runoff Reduction** measure.

For Performance Requirements 2, 3, and 4

6. The SWCP must be prepared and certified by a **civil engineer.**
7. A full **drainage plan** must be submitted.
8. **Sizing calculations** for drainage management areas and stormwater control measures must be submitted to demonstrate compliance with the Performance Requirements.
9. For most projects, a **maintenance agreement** must be recorded on the property's title.
10. For most projects, a civil engineer will need to **annually certify** that stormwater facilities are properly maintained and in functioning order.

LONG-TERM MAINTENANCE

Most projects that trigger Performance Requirements 2, 3, and 4 will involve some form of structural stormwater control measures (SCMs). These SCMs can only function as designed if they are routinely monitored and maintained. On an annual basis, the County is required to verify that all required SCMs are in functioning condition. This information is compiled into an annual report to the Central Coast Regional Water Quality Control Board.

1. **Operations and Maintenance Agreement.**

   An agreement will be recorded on the title of the property. This agreement will specify what SCMs exist on the project site, the maintenance regimen for the SCMs, the responsible party for maintenance, and the procedures for annual certification. Future purchasers of the property will be subject to the terms of the maintenance agreement.

2. **Literature on Maintenance of Stormwater Control Measures.**

   The project developer will be required to supply the first purchaser of the property with guidance on the maintenance of SCMs.

3. **Condition Compliance Monitoring (CCM) and Annual Certification.**

   A CCM case will be initiated in order to track and verify annual certification of SCMs. On an annual basis, SCMs will need to be inspected by a qualified professional (typically, an engineer). Failure to report annually can result in code enforcement action.

ADDITIONAL RESOURCES

Forms, handouts, guides, and links are available at this website:
http://www.slocounty.ca.gov/planning/drainage/stormwater2014.htm